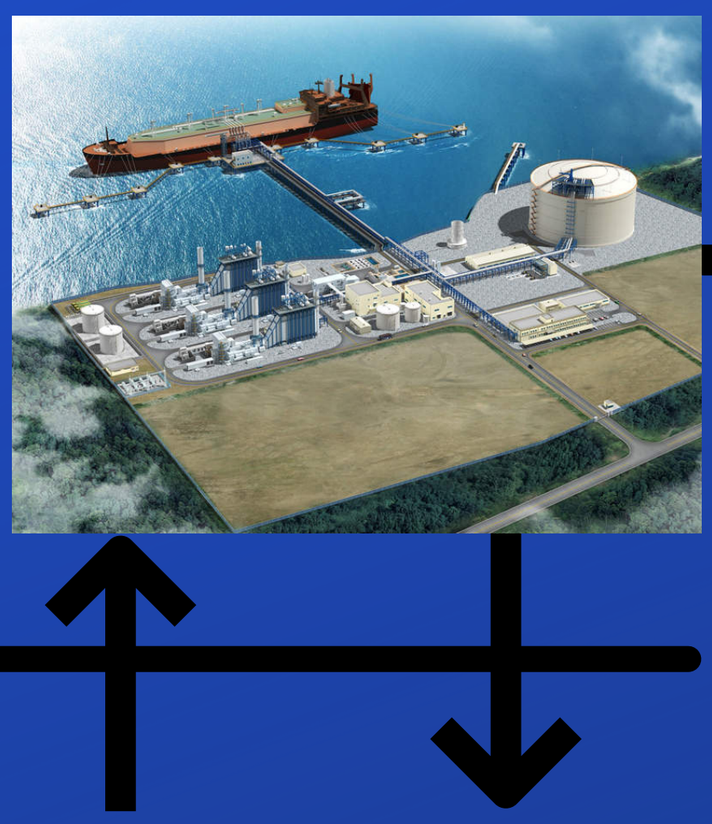
Hydrogen, Energy of the Future

Other

HYDROGEN
ENERGY OF THE FUTURE



HYDROGEN

NATURAL GAS

CARBON DIOXIDE

Natural gas is extracted from the ground in energy dense regions, like the Middle East.

Natural gas contains Carbon, which when combusted can add to global warming.

The natural gas is converted to Hydrogen and Carbon Dioxide.

The Carbon Dioxide is returned into geological formations where it is trapped.

Hydrogen is exported around the world where it can be used as a pollution free fuel.

Carbon Neutral

All of the production and shipping processes can be done in a carbon neutral manner by utilising renewable energies or by using Hydrogen as the fuel driving them.

Shipping

There are several methods under review for the transport of Hydrogen

- **Pure Hydrogen either pressurised or in a liquid form**
- **Using a liquid organic carrier like Toluene**
- **By means of a chemical conversion followed by a decomposition at the recipient port. Examples of this are Ammonia or Methanol**

Uses of Hydrogen

Hydrogen can replace natural gas for both domestic and industrial combustion.

Vehicles can be fuelled by hydrogen either by direct combustion or by conversion to electricity in a fuel cell.

Hydrogen powered cars are already on sale in the UK.

Hydrogen works in tandem with renewable energies, acting as an energy store, hedging against the times when the sun does not shine or the wind does not blow.

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